AUTHOR INDEX TO VOLUME 2

Acosta, P., 481
Agarwal, S. S., 1297
Anderson, J. B., 13
Arky, R. A., 417
Arnold, D. W., 547
Aubrey, B. B., 997
Azen, C., 481

Baer, J. E., 895
Baetjer, A. M., 131
Baggot, J. D., 787
Baron, R. L., 1067
Bass, R., 1353
Baumel, I., 1067
Berdanier, C. D., 361, 651
Berndt, W. O., 1, 323
Birkhead, H. H., 731
Blaschka, A. M., 713
Bleicher, S. J., 429
Bochert, G., 1353
Bowes, D. R., 255
Bowman, M. C., 111
Brancato, D. J., 351
Brandt, K., 417
Braun, W. H., 31, 605
Brodie, R. E., 1211
Brouwer, E., 713
Bryan, G. T., 1095
Buck, W., 335
Burger, E. J., 389
Burnett, C., 657
Buselmaier, W., 1183
Butler, V., 471
Byerly, C. S., 557

Calabrese, E. J., 709
Calandra, J. C., 547
Calo, C. J., 547
Carnow, B. W., 709
Cavender, F. L., 1147
Cerutti, P., 1375
Chang, C-C., 1317
Cherian, M. G., 945, 955, 963
Chin, L., 351
Chu, E. H. Y., 1317
Clark, D. R., 917
Cleaver, J. E., 1387
Coffin, D. L., 589
Collins, B. T., 311
Condon, R. J., 335
Cooper, A. D., 371
Corbett, J., 657
Cousins, R. J., 929
Craine, E. M., 905
Cranmer, M. F., 285, 1193
Creasia, D. A., 1173
Csuka, I., 1053
Cunningham, H. M., 1161

Dailey, R. E., 713
Daum, S. M., 997
Davis, J. E., 1193
deBari, A., 929
Decat, G., 1135
Decuyper, L. J., 1135
deDennis, S. K., 651
Delaquerriere-Richardson, L., 963
Dési, I., 1053
DeVore, V., 361
Digenis, G. A., 757
Dittert, L. W., 735
Donoho, A. L., 909
Dorn, S. B., 557
Dube, D. K., 1297

Edwards, G. S., 583
Exon, J. H., 1115

Fabacher, D. L., 1143
Feldman, S. L., 929
Fishbein, L., 77
Flores, A., 429
Forester, J., 169
Frantz, C. N., 179
Freudenthal, R. I., 1067
Frey, G. H., 401
Friedman, M. A., 67
Friend, B., 361
Fries, G., 335
Furr, A., 335

Gaines, T. B., 1007
Gallo-Torres, H. E., 827
Geber, W. F., 577
Gerber, G. B., 619
Gerstner, H. B., 491, 671
Gillette, J. R., 849
Glenn, M. W., 815
Goldstein, E., 371
Gombos, G., 429
Goyer, R. A., 963
Green, S., 713
Gross, S. B., 153
Guarino, A. M., 13

Haber, M., 453
Haettinger, J. R., 139, 1041
Haist, J., 963
Haley, T. J., 1085
Hansen, L. G., 557
Hayashi, M., 301
Hayes, A. W., 639
Herbold, B. A., 1183
Herrick, S. S., 285
Hewitt, W. R., 55
Higgins, N. P., 1395
Highman, B., 1007
Hodgson, E., 1143
Holder, C. L., 111
Hook, J. B., 55
Huff, J. E., 491, 671
Humiston, C. G., 31
Huber, W. G., 913
Hung, C. Y., 577

Inglett, G. E., 207

Jacob, T. A., 895
Jacquet, P., 619
Jaglan, P. S., 815
Jerina, D. M., 1259
Jersey, G. C., 31
Johnson, B. M., 1095
Joneja, M. G., 1031

Kacew, S., 1125
Kane, P., 589
Karran, P., 1395
Katz, E., 1297
Kawamoto, J., 663
Kennedy, G. L., 547
Keplinger, M. L., 547
Kerchner, G. A., 1067
Kesavan, P. C., 569
Ketels, K. V., 589
Kim, J. C. S., 1173
King, J. R., 111
Klimentidis, R., 255
Knopp, R. H., 417
Koch, R., 453, 459
Kojola, W. H., 709
Koller, L. D., 1115
Kon, K., 1109
Konvicka, A. K., 285
Koschier, F. J., 323

Langer, A. M., 255
Lanphear, S. P., 1095
Lawrence, G. A., 1161
Lawrence, L. R., 285
LeBeau, J. E., 605
Lefèvre, M. J., 1135
Lefkowitz, S. S., 577
Lehr, R. E., 1259
Lemkey-Johnston, N., 471
Léonard, A., 619, 1135
Léonard, E. D., 1137
Loeb, L. A., 1297
Loehr, R., 657
Loewengart, G., 539
Lorimer, W. V., 997
Lower, G. M., 1095
Luckey, T. D., 633

Mackerer, C. R., 139, 1041
Maeda, N., 1109
Magee, P. N., 883, 1415
Makar, A. B., 1201
Malling, H. V., 179
Mason, C. G., 977
Mazur, R. H., 243
McCormack, K. M., 55
McLachlan, J. A., 527
McMahon, F. G., 441
Meerdink, G., 335
Mehlman, M., 139, 361, 1041
Mercer, H. D., 335, 787
Merker, H-J., 1353
Middendorf, M. S., 153
Mikami, E., 301
Mirvish, S. S., 1267
Monlux, W. S., 713
Muldoon, E., 441
Munro, H. N., 189

Neff, A. W., 815
Nettesheim, P., 1173
Neubert, D., 1353
Nicaise, Cl., 1135

Oppermann, J. A., 441

Patrick, J. M., 169
Pegg, D. G., 55
Peoples, A. J., 1193
Perez, M. K., 727
Persing, R. L., 1067
Picchioni, A. L., 351
Pierce, G. B., 1335
Pohl, L. R., 849
Port, C. D., 589
Pritchard, J. B., 13
Prouty, R. M., 917

Rall, D. P., 13
Ramel, C., 1019
Ramsey, J. C., 31
Ranney, R. E., 441
Rannug, U., 1019
Recitas, D., 429
Remsen, J., 1375
Reynaldo, E. F., 713
Reynolds, W. A., 471
Roberts, R. J., 625
Rohl, A. N., 255
Röhrborn, G., 1183
Rosenblum, C., 803
Rubin, R. J., 131
Ruggles, D. I., 713

Salhab, A. S., 583
Saffiotti, U., 1435
Sams, R. A., 787
Sanders, V., 67
Sato, Y., 301
Sauerhoff, M. W., 31, 605
Saunders, R. N., 139, 1041
Schaeffler, G., 459
Schimmel, S. C., 169
Schumacher, H. J., 1007
Seal, G., 1297
Selikoff, I. J., 255, 997
Selkirk, J. K., 1245
Shank, R. C., 1229
Shaw, K. N. F., 453, 459
Shiga, T., 1109
Shinohara, K., 1375
Shu, J., 429
Sieck, R. F., 847
Silbon, B. L., 929
Singer, B., 1279
Singhal, R. L., 1125
Sirover, M. A., 1297
Skinner, D. L., 255
Sobotka, T. J., 1211
Spaid, S. L., 1211
Squibb, K. S., 929
Srinivasan, A., 569
Steginк, L. D., 215
Steinhagen, W. H., 1147
Stern, S. B., 429
Stevenson, A. J., 1125
Stowe, H. D., 45
Strauss, B. S., 1395
Suketa, Y., 25, 301, 663
Sundlof, S. F., 557
Szlobodnyik, J., 1053

Tarkington, B., 371
Taylor, D. W., 285
Tephly, T. R., 1201
Teske, R. H., 335
Thilly, W. G., 1343
Thorgeirsson, S. S., 873
Tobin, R. B., 361
Tordini, A., 255
Trosko, J. E., 1317
Tryphonas, L., 1161
Ts'o, P. O., 1305

Valberg, L. S., 963
Van Duuren, B. L., 539
Venugopal, B., 633
Vostal, J. J., 945

Waters, E. M., 671
Watson, S. A., 639
Weymouth, L. A., 1297
Williams, J. L., 1147
Williamson, M., 453, 481
Wilson, D. W., 557
Winston, J. M., 625
Wirth, P. J., 873
Withey, J. R., 311
Wolf, F. J., 895
Wolff, M. S., 997, 1079
Woods, D., 1147

Yamamoto, T., 25, 301
Yamanaka, N., 25
Yeager, D. W., 153

Zapp, J. A., 1425

SUBJECT INDEX TO VOLUME 2

Acute anoxia, effects on renal transport, 1
Aflatoxicol (AFL), production of from aflatoxin B_1, 583
Aflatoxins, toxicity of, 1229
Alkylating agents, carcinogenicity of, 1279
Alkylation damage and DNA excision repair, 1395
Alkylation of a nucleic acid, 1279
Amino acids, absorption and metabolism, 189
4-Aminobiphenyl, methods of tracing, 111
Aniline, 131
Animal safety and radioactive drug metabolism, 913
Aromatic hydrocarbon, carcinogenicity of, 1259
Aryl compounds as environmental electrophiles, 1095
Aspartame
  and hypothalamic morphology, 471
  metabolism of, 441
  and non-insulin-dependent diabetes, 429
  in phenylketonuric children, 459
  in phenylketonuric heterozygotes, 453
  vs. sucrose in healthy children, 401
  sweetness of, 243
  toxicity of, 417
  and weight reduction, 417
Aspartic acid, absorption, utilization, and safety of, 215

Benzo[*a*]anthracene diol epoxides and carcinogenesis, 1259
Benzo[*a*]pyrene
  carcinogenesis, 1245, 1305
  metabolism, 1305
  and repair of DNA damage, 1375
Beta-hydroxypropionitrile and toxicology, 31
Biliary excretion of cadmium, 45, 945, 955
Bioavailability of labeled residues, 827
Blood transport, effect of nitric oxide on, 1109
Bromodeoxyuridine resistance in lymphoma cells, 179

Cadmium
  biliary excretion of, 45, 945, 955
  biomedical responses to, 929
  concentrations in humans, 153
  levels in hair and tissues, 351
Cadmium chloride, toxicity of, 963
Cadmium-thionein, toxicity of, 963
Caffeine, toxicity of, 569
Cambendazole in tissue residues, 895
Cancer prevention and environmental carcinogenesis, 1435
Cannabis, effect of on hamster fetuses, 1031
Carbon monoxide lethality, effect of cyanate on, 625
Carcinogenic activity, prediction of from chemical structure, 1415
Carcinogenicity of hair dyes, 251
Carcinogens, environmental metallic, 77
Catalytic converters and sulfuric acid mists, 1147
Central nervous system, effect of tartrazine on, 1211
Chemical carcinogenesis, basic mechanisms of, 1305
Chemical flame retardants and carcinogenesis, 539
Chemical mutation in human lymphoblasts, 1343
Chlordane, technical, effects of, 547
Chlorinated cake flour, toxicity of, 1161
Chloroquine, effect of on mixed-function oxidases, 1193
Colds preparation and pulmonary defense systems, 371
Cosmetic talc products
  mineralogical characteristics of, 1223
  safety of, 1221
Covalent binding
  and endogenous incorporation in nitroso carcinogens, 883
  of foreign chemicals, 873
  and toxicity, 849
Cyanate, effect on carbon monoxide and hypoxic hypoxia lethality, 625

DDT
  effects of, 1053
  effects of exercise on, 651

Delaney amendment and maleic hydrazide, 1085
Diabetes
  and aspartame, 429
  and diphenylhydantoin, 1041
  effect of drugs on, 139
1,1-Dichloro-2,2-bis(*p*-chlorphenyl)ethylene and brown bats, 917
Dietary cadmium, biomedical responses to, 929
Diethylstilbestrol, prenatal exposure to, 527
Differentiation and carcinogenesis, 1335
Diphenylhydantoin
  diabetogenic activity in, 139
  and mixed function oxidases, 1193
5,5-Diphenyl-2-thioxydantoin, diabetogenic activity of, 1041
Dimethylnitrosamine
  and piperonyl butoxide, 67
  as a promutagen, 179
DNA repair
  and alkylation damage, 1395
  and excisible damage in human cells, 1387
  in mammalian cells, 1375
  systems of, 1343
DNA synthesis
  and lead exposure, 1125
  and mutagenesis, 1297
  and nitrogen dioxide, 1173
Dose-dependent biliary excretion and cadmium, 945
Drug metabolism and food-producing animals, 909
Drug-related bound residues, 815
Drug residues, application of pharmacokinetic methods to, 787

Electrophiles, environmental, 1095
Emphysema, experimental and spontaneous, 589
Enteropathy, cadmium induced, 963
Environmental carcinogenesis and cancer prevention, 1435
Environmental carcinogens, *N*-nitroso compounds as, 1267
Environmental contaminants in food chain, 1115
Environmental metallic carcinogens, 77
Enzyme activity and fluoride, 301
Ethylenebisisothiocyanate sulfide, toxicity of, 1067
Exercise, effect on DDT, 651
Extrapolation and carcinogenesis, 1415, 1425

Fetal renal alkaline phosphatase, 1007
Fidelity of DNA synthesis, 1297
Fluoride and ion mobilization, 301
Folic acid, role of in methanol poisoning, 1201
Food and Drug Administration, 727
Food-producing animals and drug metabolism, 909, 913
Foreign chemicals, covalent binding of, 873
Fungicides, toxicity of, 1067

Glucogenesis, 489
Glycine cleavage activity, effect of lead on, 25
Government regulation and unmatured science, 389

Hair dyes
  carcinogenicity of, 251
  mutagenicity of, 657
Hemolytic anemia, ozone as cause of, 709
Hepatobiliary transport of cadmium and metallothionein, 955
Heptachlor
  effects of, 547
  spot exposed to, 169
Herbicides
  and fetal renal alkaline phosphatase, 1007
  organic acid, toxicity of, 323
  toxicity of, 605
Herd health status and polybrominated biphenyls, 335
Heterocyclic diazo compounds as environmental electrophiles, 1095
Hexachlorobenzene, effects of, 557
Hexobarbital, 131
Hypothalamic morphology
  and aspartame, 471
  and monosodium glutamate, 471
Hypoxic hypoxia lethality, effect of cyanate on, 625

Industry, waste products from, 1019
Insecticides, toxicity of, 547
Interferon inhibition and morphine, 577
Ionizing radiation and repair of DNA damage, 1375
Ion mobilization and fluoride, 301
Isotopes, stable and short-lived, 757

Labeled residues, bioavailability of, 827
Lead
  and biosynthesis of DNA, 1125
  cytogenetic effects of, 619

Lead (*continued*)
effect on glycine cleavage activity, 25
effect on *p*-nitrophenylphosphatase, 663
Lymphoblasts, human, chemical mutation in, 1343
Lymphocytes and vinyl chloride, 1135

Maleic hydrazide and the Delaney amendment, 1085
Mammalian embryos, teratogenesis and mutagenesis in, 1353
Mercury, clinical toxicology of, 491
Metabolism, effect of water and food deprivation on, 131
Metallothionein and hepatobiliary transport of cadmium, 955
Metal toxicity, evaluation of, 633
Methanol poisoning, role of folic acid in, 1201
Methylated solvents, mixed-function oxidase induction by, 1143
Methylmercury
distribution in lobster, 13
effect on serum enzymes and humoral antibody, 1115
Mixed-function oxidase
effects of diphenylhydantoin and chlorquine on, 1193
induction and methylated solvents, 1143
Monosodium glutamate and hypothalamic morphology, 471
Morphine, interferon inhibition by, 577
Murine pulmonary defense systems and toxicity, 371
Mutational approach to carcinogenesis, 1317
Mycotoxins, metabolic activation of, 1229

2-Naphthylamine, methods of tracing, 111
Nitric oxide, effect of on blood transport, 1109
Nitrogen dioxide and DNA synthesis, 1173
p-Nitrophenylphosphatase, inhibition of, 663
Nitrosamines as environmental carcinogens, 1267
Nitroso carcinogens, covalent binding and endogenous incorporation in, 883
N-Nitroso compounds as environmental carcinogens, 1267
Nondrug macromolecules in tissue residues, 895
Non-drug-related residues, tracing of, 803
Nonextractable bound drug-related residues, 847
Nucleic acids, alkylation of, 1279
Nutrient intake, computerized estimation of, 481

Ocular function impairment and drugs, 977
Organochlorine pollutants and DDE and PCB, 917
Ozone as possible cause of hemolytic anemia, 709

Patulin, toxicity of, 713
Pesticide toxicity in tissue culture, 1053
Phenylalanine, 189
Phenylketonuria and aspartame, 453, 459
Piperonyl butoxide and dimethylnitrosamine, 67
Point-mutation research, relevance to humans, 1183
Polyaromatic hydrocarbons and carcinogenesis, 1245
Polybrominated biphenyls and herd health status, 335
Polychlorinated biphenyls and brown bats, 917
Polycyclic compounds and ocular function impairment, 977
Polymerization workers, effects of styrene on, 997
Polyribosomal disaggregation, rubratoxin-induced, 639
Pyroset TKP, toxicity of, 539

Quantum mechanical calculations and diol epoxides, 1259

Radioactive drug metabolism and food-producing animals, 913
Relay residue studies, 905
Relay toxicity approach, 905
Renal transport, effect of acute anoxia on, 1
Repair replication and human cell damage, 1387
Research data integrity, systems for, 285
Residue chemistry requirements and food-producing animals, 909
Rubratoxin-induced polyribosomal disaggregation, 641

Silvex, pharmacokinetic profile of, 607
Sister chromatid exchanges and human cell damage, 1387
Somatic mutation theory of carcinogenesis, 1317
Styrene and polymerization workers, 997

Sulfuric acid mists, thermodynamics and toxicity of, 1147
Sweeteners, natural and synthetic, 207

Talcums and powders, consumer, 255
Tartrazine, effect on central nervous system, 1211
Teratogenesis and mutagenesis in mammalian embryos, 1353
Tetrachlorodibenzo-*p*-dioxin, effects on renal function, 55
Δ^9-Tetrahydrocannabinol, effects of on hamster fetuses, 1031
Tetrakis(hydroxymethyl)phosphonium chloride, toxicity of, 539
Theophylline and metabolism, 361
Tissue residues, pharmacokinetic prediction of, 735
Toxicity and covalent binding, 849
Toxicology and beta-hydroxypropionitrile, 31
Toxic compounds, classification system for, 633
Trichloroethylene, 671
2,4,5-Trichlorophenoxyacetate and renal transport depression, 323

Unmatured science and government regulation, 389

Vinyl chloride and carcinogenesis, 1019
Vinyl chloride monomer
  and carcinogenesis, 311
  and polymerization workers, 1135

CONTENTS OF VOLUME 2

NUMBER 1

1 EFFECTS OF ACUTE ANOXIA ON RENAL TRANSPORT PROCESSES. **W. O. Berndt**

13 TISSUE DISTRIBUTION OF [^{14}C]METHYL MERCURY IN THE LOBSTER, *Homarus americanus*. **A. M. Guarino, J. B. Anderson, J. B. Pritchard, and D. P. Rall**

25 EFFECT OF LEAD ON GLYCINE CLEAVAGE ACTIVITY IN RAT LIVER MITOCHONDRIA. **Yasunobu Suketa, Noriyasu Yamanaka, and Takeo Yamamoto**

31 TOXICOLOGICAL EVALUATION AND PHARMACOKINETIC PROFILE OF BETA-HYDROXYPROPIONITRILE IN RATS. **M. W. Sauerhoff, W. H. Braun, J. C. Ramsey, C. G. Humiston, and G. C. Jersey**

45 BILIARY EXCRETION OF CADMIUM BY RATS: EFFECTS OF ZINC, CADMIUM, AND SELENIUM PRETREATMENTS. **Howard D. Stowe**

55 EFFECT OF 2,3,7,8-TETRACHLORODIBENZO-*p*-DIOXIN ON RENAL FUNCTION IN THE RAT. **D. G. Pegg, W. R. Hewitt, K. M. McCormack, and J. B. Hook**

67 EFFECTS OF PIPERONYL BUTOXIDE ON DIMETHYLNITROSAMINE METABOLISM AND TOXICITY IN SWISS MICE. **Marvin A. Friedman and Virginia Sanders**

77 ENVIRONMENTAL METALLIC CARCINOGENS: AN OVERVIEW OF EXPOSURE LEVELS. **Lawrence Fishbein**

111 4-AMINOBIPHENYL, 2-NAPHTHYLAMINE, AND ANALOGS: ANALYTICAL PROPERTIES AND TRACE ANALYSIS IN FIVE SUBSTRATES. **C. Lee Holder, Jimmie R. King, and Malcolm C. Bowman**

131 EFFECT OF WATER AND FOOD DEPRIVATION ON HEPATIC MICROSOMAL METABOLISM OF HEXOBARBITAL AND ANILINE. **Anna M. Baetjer and Robert J. Rubin**

139 ASSESSMENT OF DIABETOGENIC DRUG ACTIVITY IN THE RAT: DIPHENYLHYDANTOIN. **Carl R. Mackerer, Robert N. Saunders, Janet R. Haettinger, and Myron A. Mehlman**

153 CADMIUM IN LIVER, KIDNEY, AND HAIR OF HUMANS, FETAL THROUGH OLD AGE. **Stanley B. Gross, David W. Yeager, and Margaret S. Middendorf**

169 HEPTACHLOR: UPTAKE, DEPURATION, RETENTION, AND METABOLISM BY SPOT, *Leiostomus xanthurus*. **Steven C. Schimmel, James M. Patrick, Jr., and Jerrold Forester**

179 BROMODEOXYURIDINE RESISTANCE INDUCED IN MOUSE LYMPHOMA CELLS BY MICROSOMAL ACTIVATION OF DIMETHYLNITROSAMINE. **Christopher N. Frantz and H. V. Malling**

SWEETENER REVIEWS

189 ABSORPTION AND METABOLISM OF AMINO ACIDS WITH SPECIAL EMPHASIS ON PHENYLALANINE. **Hamish N. Munro**

207 A HISTORY OF SWEETENERS—NATURAL AND SYNTHETIC. **George E. Inglett**

215 ABSORPTION, UTILIZATION, AND SAFETY OF ASPARTIC ACID. **Lewis D. Stegink**

243 ASPARTAME—A SWEET SURPRISE. **Robert H. Mazur**

LETTER TO THE EDITOR

251 CARCINOGENICITY OF HAIR DYES BY SKIN PAINTING IN MICE. **B. A. Bridges and M. H. L. Green**

253 ANNOUNCEMENTS

NUMBER 2

255 CONSUMER TALCUMS AND POWDERS: MINERAL AND CHEMICAL CHARACTERIZATION. **A. N. Rohl, A. M. Langer, I. J. Selikoff, A. Tordini, R. Klimentidis, D. R. Bowes, and D. L. Skinner**

285 RESEARCH DATA INTEGRITY: A RESULT OF AN INTEGRATED INFORMATION SYSTEM. **M. F. Cranmer, S. S. Herrick, L. R. Lawrence, A. K. Konvicka, and D. W. Taylor**

301 CHANGES OF ION MOBILIZATIONS AND THEIR RELATED ENZYME ACTIVITIES IN THE BLOOD OF FLUORIDE-INTOXICATED RATS. **Yasunobu Suketa, Eiichi Mikami, Yoshimi Sato, Michiko Hayashi, and Takeo Yamamoto**

311 A STATISTICAL ASSESSMENT OF THE QUANTITATIVE UPTAKE OF VINYL CHLORIDE MONOMER FROM AQUEOUS SOLUTION. **Jim R. Withey and Brian T. Collins**

323 STUDIES ON THE MECHANISM OF RENAL TRANSPORT DEPRESSION CAUSED BY PRETREATMENT WITH 2,4,5-TRICHLOROPHENOXYACETATE. **Francis J. Koschier and William O. Berndt**

335 HERD HEALTH STATUS OF ANIMALS EXPOSED TO POLYBROMINATED BIPHENYLS (PBB). **H. Dwight Mercer, Richard H. Teske, Robert J. Condon, Allen Furr, Gavin Meerdink, William Buck, and George Fries**

351 CADMIUM LEVELS IN HAIR AND OTHER TISSUES DURING CONTINUOUS CADMIUM INTAKE. **David J. Brancato, Albert L. Picchioni, and Lincoln Chin**

361 METABOLIC RESPONSES OF RATS TO CHRONIC THEOPHYLLINE INGESTION. **Richard B. Tobin, Beverly Friend, Carolyn D. Berdanier, Myron A. Mehlman, and Viola DeVore**

371 EFFECT OF INHALING MEDICATION VAPORS FROM A COLDS PREPARATION ON MURINE PULMONARY BACTERIAL DEFENSE SYSTEMS. **Elliot Goldstein, Aaron D. Cooper, and Brian Tarkington**

389 UNMATURED SCIENCE AND GOVERNMENT REGULATION. **Edward J. Burger, Jr.**

SWEETENER REVIEWS

401 USE OF ASPARTAME BY APPARENTLY HEALTHY CHILDREN AND ADOLESCENTS. **Gunther H. Frey**

417 EFFECTS OF ASPARTAME IN YOUNG PERSONS DURING WEIGHT REDUCTION. Robert H. Knopp, Kathleen Brandt, and Ronald A. Arky

429 ADMINISTRATION OF ASPARTAME IN NON-INSULIN-DEPENDENT DIABETICS. Sol B. Stern, S. J. Bleicher, A. Flores, G. Gombos, D. Recitas, and J. Shu

441 COMPARATIVE METABOLISM OF ASPARTAME IN EXPERIMENTAL ANIMALS AND HUMANS. R. E. Ranney, J. A. Oppermann, E. Muldoon, and F. G. McMahon

453 USE OF ASPARTAME IN PHENYLKETONURIC HETEROZYGOUS ADULTS. Richard Koch, Kenneth N. F. Shaw, Malcolm Williamson, and Margaret Haber

459 RESULTS OF LOADING DOSES OF ASPARTAME BY TWO PHENYLKETONURIC (PKU) CHILDREN COMPARED WITH TWO NORMAL CHILDREN. Richard Koch, G. Schaeffler, and K. N. F. Shaw

471 HYPOTHALAMIC MORPHOLOGY FOLLOWING INGESTION OF ASPARTAME OR MSG IN THE NEONATAL RODENT AND PRIMATE: A PRELIMINARY REPORT. W. Ann Reynolds, Veronica Butler, and Naomi Lemkey-Johnston

481 A COMPUTERIZED PROCEDURE FOR ESTIMATING NUTRIENT INTAKE. Malcolm Williamson, Colleen Azen, and Phyllis Acosta

489 BOOK REVIEW

NUMBER 3

491 CLINICAL TOXICOLOGY OF MERCURY. Herbert B. Gerstner and James Edward Huff

527 PRENATAL EXPOSURE TO DIETHYLSTILBESTROL IN MICE: TOXICOLOGICAL STUDIES. J. A. McLachlan and H. C. Shah

539 EVALUATION OF CHEMICAL FLAME RETARDANTS FOR CARCINOGENIC POTENTIAL. Gordon Loewengart and Benjamin L. Van Duuren

547 DOMINANT LETHAL STUDIES WITH TECHNICAL CHLORDANE, HCS-3260, AND HEPTACHLOR: HEPTACHLOR EPOXIDE. D. W. Arnold, G. L. Kennedy, Jr., M. L. Keplinger, J. C. Calandra, and C. J. Calo

557 EFFECTS AND RESIDUES OF DIETARY HEXACHLOROBENZENE IN GROWING SWINE. L. G. Hansen, D. W. Wilson, C. S. Byerly, S. F. Sundlof, and S. B. Dorn

569 TOXIC EFFECTS OF CAFFEINE ON GROWTH AND METAMORPHOSIS OF THE LARVAE OF *Musca domestica*. A. Srinivasan and P. C. Kesavan

577 DURATION OF INTERFERON INHIBITION FOLLOWING SINGLE AND MULTIPLE INJECTIONS OF MORPHINE. William F. Geber, Stanley S. Lefkowitz, and Chung Y. Hung

583 PRODUCTION OF AFLATOXICOL FROM AFLATOXIN B_1 BY POSTMITOCHONDRIAL LIVER FRACTIONS. Abdulazim S. Salhab and Gordon S. Edwards

589 A COMPARATIVE STUDY OF EXPERIMENTAL AND SPONTANEOUS EMPHYSEMA. Curtis D. Port, Kathleen V. Ketels, David L. Coffin, and Philip Kane

605 DOSE-DEPENDENT PHARMACOKINETIC PROFILE OF SILVEX FOLLOWING INTRAVENOUS ADMINISTRATION IN RATS. M. W. Sauerhoff, W. H. Braun, and J. E. LeBeau

619 CYTOGENETIC INVESTIGATIONS ON MICE TREATED WITH LEAD. P. Jacquet, A. Léonard, and G. B.. Gerber

625 EFFECT OF POTASSIUM CYANATE ON CARBON MONOXIDE AND HYPOXIC HYPOXIA-INDUCED LETHALITY. Joseph M. Winston and Robert J. Roberts

633 pT, A NEW CLASSIFICATION SYSTEM FOR TOXIC COMPOUNDS. T. D. Luckey and B. Venugopal

639 EVALUATION OF POSSIBLE SITES OF ACTION OF RUBRATOXIN B-INDUCED POLYRIBOSOMAL DISAGGREGATION IN MOUSE LIVER. Sharon A. Watson and A. Wallace Hayes

651 EFFECT OF EXERCISE ON THE RESPONSES OF RATS TO DDT. Carolyn D. Berdanier and Susana K. de Dennis

657 DOMINANT LETHAL MUTAGENICITY STUDY ON HAIR DYES. C. Burnett, R. Loehr, and J. Corbett

663 EFFECTS OF LEAD AND OTHER INHIBITORS ON THE ACTIVATION OF K^+-DEPENDENT *p*-NITROPHENYLPHOSPHATASE ACTIVITY BY GLYCINE. Yasunobu Suketa and Junko Kawamoto

671 TRICHLOROETHYLENE. I. AN OVERVIEW. E. M. Waters, H. B. Gerstner, and J. E. Huff

709 OZONE: A POSSIBLE CAUSE OF HEMOLYTIC ANEMIA IN GLUCOSE-6-PHOSPHATE DEHYDROGENASE DEFICIENT INDIVIDUALS. Edward J. Calabrese, William H. Kojola, and Bertram W. Carnow

713 INTERMEDIATE-DURATION TOXICITY STUDY OF PATULIN IN RATS. R. E. Dailey, E. Brouwer, A. M. Blaschka, E. F. Reynaldo, S. Green, W. S. Monlux, and D. I. Ruggles

NUMBER 4

iii INTRODUCTION. Jerry Brunton, Lloyd Davis, and William Huber, Guest Editors

iv PARTICIPANTS

727 FOOD AND DRUG ADMINISTRATION STATEMENT OF PROBLEM. Maryln K. Perez

731 INDUSTRY STATEMENT OF PROBLEM. Helen H. Birkhead

735 PHARMACOKINETIC PREDICTION OF TISSUE RESIDUES. Lewis W. Dittert

757 STABLE AND SHORT-LIVED ISOTOPES IN THE STUDY OF TISSUE DISTRIBUTION. George A. Digenis

787 APPLICATION OF PHARMACOKINETIC METHODS TO THE DRUG RESIDUE PROFILE. H. D. Mercer, J. D. Baggot, and R. A. Sams

803 NON-DRUG-RELATED RESIDUES IN TRACER STUDIES. Charles Rosenblum

815 EXPERIENCES IN DEALING WITH DRUG-RELATED BOUND RESIDUES. **Prem S. Jaglan, M. Weldon Glenn, and A. William Neff**

827 METHODOLOGY FOR THE DETERMINATION OF BIOAVAILABILITY OF LABELED RESIDUES. **Hugo E. Gallo-Torres**

847 BIOAVAILABILITY AND SAFETY OF NONEXTRACTABLE BOUND DRUG-RELATED RESIDUES. **Robert F. Sieck**

849 A PROSPECTIVE ON COVALENT BINDING AND TOXICITY. **James R. Gillette and Lance R. Pohl**

873 COVALENT BINDING OF FOREIGN CHEMICALS TO TISSUE MACROMOLECULES. **Snorri S. Thorgeirsson and Peter J. Wirth**

883 COVALENT BINDING AND ENDOGENOUS INCORPORATION AS ILLUSTRATED BY NITROSO CARCINOGENS. **P. N. Magee**

895 CAMBENDAZOLE AND NONDRUG MACROMOLECULES IN TISSUE RESIDUES. **J. E. Baer, T. A. Jacob, and F. J. Wolf**

905 RELAY RESIDUE STUDIES: A MODIFICATION OF THE RELAY TOXICITY APPROACH. **Elliott M. Craine**

909 SUMMARY COMMENTS ON DRUG METABOLISM AND RESIDUE CHEMISTRY REQUIREMENTS FOR THE USE OF DRUGS IN FOOD-PRODUCING ANIMALS. **A. L. Donoho**

913 SUMMARIZATION: ASSESSMENT OF CURRENT STATUS OF AVAILABLE METHODOLOGIES TO UTILIZE RADIOACTIVE DRUG METABOLISM STUDIES FOR DETERMINING SAFETY OF ANIMALS. **W. G. Huber**

917 EXPERIMENTAL FEEDING OF DDE AND PCB TO FEMALE BIG BROWN BATS (*Eptesicus fuscus*). **Donald R. Clark, Jr. and Richard M. Prouty**

929 BIOMEDICAL RESPONSES OF RATS TO CHRONIC EXPOSURE TO DIETARY CADMIUM FED IN *AD LIBITUM* AND EQUALIZED REGIMES. **Robert J. Cousins, Katherine S. Squibb, Stuart L. Feldman, Anthony de Bari, and Brian L. Silbon**

945 BILIARY EXCRETION OF CADMIUM IN RAT. I. DOSE-DEPENDENT BILIARY EXCRETION AND THE FORM OF CADMIUM IN THE BILE. **M. George Cherian and Jaroslav J. Vostal**

955 BILIARY EXCRETION OF CADMIUM IN RAT. II. THE ROLE OF METALLOTHIONEIN IN THE HEPATOBILIARY TRANSPORT OF CADMIUM. **M. George Cherian**

963 CADMIUM-INDUCED ENTEROPATHY: COMPARATIVE TOXICITY OF CADMIUM CHLORIDE AND CADMIUM-THIONEIN. **Leslie S. Valberg, James Haist, M. George Cherian, Liliane Delaquerriere-Richardson, and Robert A. Goyer**

976 ANNOUNCEMENTS

NUMBER 5

977 OCULAR ACCUMULATION AND TOXICITY OF CERTAIN SYSTEMICALLY ADMINISTERED DRUGS. **C. G. Mason**

997 STYRENE AND RELATED HYDROCARBONS IN SUBCUTANEOUS FAT FROM POLYMERIZATION WORKERS. **Mary Snow Wolff, Susan M. Daum, William V. Lorimer, Irving J. Selikoff, and Bertrand B. Aubrey**

1007 RETARDED DEVELOPMENT OF FETAL RENAL ALKALINE PHOSPHATASE IN MICE GIVEN 2,4,5-TRICHLOROPHENOXYACETIC ACID. **B. Highman, T. B. Gaines, and H. J. Schumacher**

1019 MUTAGENICITY OF WASTE PRODUCTS FROM VINYL CHLORIDE INDUSTRIES. **U. Rannug and C. Ramel**

1031 EFFECTS OF Δ^9-TETRAHYDROCANNABINOL ON HAMSTER FETUSES. **M. G. Joneja**

1041 ASSESSMENT OF DIABETOGENIC DRUG ACTIVITY IN THE RAT: 5,5-DIPHENYL-2-THIOHYDANTOIN. **Carl R. Mackerer, Robert N. Saunders, Janet R. Haettinger, and Myron A. Mehlman**

1053 TESTING OF PESTICIDE TOXICITY IN TISSUE CULTURE. **I. Dési, G. Dura, J. Szlobodnyik, and I. Csuka**

1067 SUBACUTE TOXICITY OF ETHYLENEBISISOTHIOCYANATE SULFIDE IN THE LABORATORY RAT. **Ralph I. Freudenthal, Gail A. Kerchner, Ronald L. Persing, Irwin Baumel, and Ronald L. Baron**

1079 HALOTHANE IN TISSUE OF RATS FOLLOWING REPEATED SUBANESTHETIC EXPOSURES. **Mary Snow Wolff**

1085 MALEIC HYDRAZIDE: SHOULD THE DELANEY AMENDMENT APPLY TO ITS USE? **Thomas J. Haley**

1095 ARYL AND HETEROCYCLIC DIAZO COMPOUNDS AS POTENTIAL ENVIRONMENTAL ELECTROPHILES. **Gerald M. Lower, Jr., Steven P. Lanphear, Bruce M. Johnson, and George T. Bryan**

1109 EFFECT OF NITRIC OXIDE ON THE OXYGEN TRANSPORT OF HUMAN ERYTHROCYTES. **Kazunori Kon, Nobuji Maeda, and Takeshi Shiga**

1115 METHYLMERCURY: EFFECT ON SERUM ENZYMES AND HUMORAL ANTIBODY. **L. D. Koller, Jerry H. Exon, and B. Arbogast**

1125 REAPPRAISAL OF THE USE OF A SINGLE DOSE OF LEAD FOR THE STUDY OF CELL PROLIFERATION IN KIDNEY, LIVER, AND LUNG. **A. J. Stevenson, S. Kacew, and R. L. Singhal**

1135 CYTOGENETIC INVESTIGATIONS ON LYMPHOCYTES FROM WORKERS EXPOSED TO VINYL CHLORIDE. **A. Léonard, G. Decat, E. D. Léonard, M. J. Lefèvre, L. J. Decuyper, and Cl. Nicaise**

1143 HEPATIC MIXED-FUNCTION OXIDASE ACTIVITY IN MICE TREATED WITH METHYLATED BENZENES AND METHYLATED NAPHTHALENES. **David L. Fabacher and Ernest Hodgson**

1147 THERMODYNAMICS AND TOXICITY OF SULFURIC ACID MISTS. **F. L. Cavender, J. L. Williams, W. H. Steinhagen, and D. Woods**

1161 TOXIC EFFECTS OF CHLORINATED CAKE FLOUR IN RATS. **H. M. Cunningham, G. A. Lawrence, and L. Tryphonas**

1173 STIMULATION OF DNA SYNTHESIS IN THE LUNGS OF HAMSTERS EXPOSED INTERMITTENTLY TO NITROGEN DIOXIDE. D. A. Creasia, P. Nettesheim, and J. C. S. Kim

1183 POINT-MUTATION RESEARCH: RELEVANCE FOR HUMANS. Bernd A. Herbold, G. Röhrborn, and W. Buselmaier

1193 EFFECTS OF DIPHENYLHYDANTOIN AND CHLOROQUINE ON MONKEY LIVER MICROSOMAL MIXED-FUNCTION OXIDASES. James E. Davis, Morris F. Cranmer, and Anita J. Peoples

1201 METHANOL POISONING VI: ROLE OF FOLIC ACID IN THE PRODUCTION OF METHANOL POISONING IN THE RAT. A. B. Makar and T. R. Tephly

1211 TARTRAZINE AND THE DEVELOPING NERVOUS SYSTEM OF RATS. Thomas J. Sobotka, Robert E. Brodie, and Stephen L. Spaid

LETTERS TO THE EDITOR

1221 SAFETY OF CONSUMER COSMETIC TALC PRODUCTS. Gavin Hildick-Smith

1223 MINERALOGICAL CHARACTERIZATION OF COSMETIC TALC PRODUCTS. Jerome B. Krause

1227 ANNOUNCEMENTS

NUMBER 6

MECHANISMS OF MOLECULAR AND CELLULAR TOXICOLOGY

v INTRODUCTION. David A. Smith, Guest Editor

vi PARTICIPANTS

1229 METABOLIC ACTIVATION OF MYCOTOXINS BY ANIMALS AND HUMANS: AN OVERVIEW. Ronald C. Shank

1245 BENZO[*a*]PYRENE CARCINOGENESIS: A BIOCHEMICAL SELECTION MECHANISM. James K. Selkirk

1259 RELATIONSHIPS OF QUANTUM MECHANICAL CALCULATIONS, RELATIVE MUTAGENICITY OF BENZO[*a*]ANTHRACENE DIOL EPOXIDES, AND "BAY REGION" CONCEPT OF AROMATIC HYDROCARBON CARCINOGENICITY. Roland E. Lehr and Donald M. Jerina

1267 *N*-NITROSO COMPOUNDS: THEIR CHEMICAL AND *IN VIVO* FORMATION AND POSSIBLE IMPORTANCE AS ENVIRONMENTAL CARCINOGENS. Sidney S. Mirvish

1279 SITES IN NUCLEIC ACIDS REACTING WITH ALKYLATING AGENTS OF DIFFERING CARCINOGENICITY OR MUTAGENICITY. B. Singer

1297 INFIDELITY OF DNA SYNTHESIS AS RELATED TO MUTAGENESIS AND CARCINOGENESIS. L. A. Loeb, M. A. Sirover, L. A. Weymouth, D. K. Dube, G. Seal, S. S. Agarwal, and E. Katz

1305 SOME ASPECTS OF THE BASIC MECHANISMS OF CHEMICAL CARCINOGENESIS. **Paul O. P. Ts'o**

1317 MUTATIONAL APPROACHES TO THE STUDY OF CARCINOGENESIS. **Ernest H. Y. Chu, James E. Trosko, and Chia-Cheng Chang**

1335 RELATIONSHIP BETWEEN DIFFERENTIATION AND CARCINOGENESIS. **G. B. Pierce**

1343 CHEMICAL MUTATION IN HUMAN LYMPHOBLASTS. **W. G. Thilly**

1353 SOME ASPECTS OF TERATOGENESIS AND MUTAGENESIS IN MAMMALIAN EMBRYOS. **Rolf Bass, Gerd Bochert, Diether Neubert, and Hans-Joachim Merker**

1375 REPAIR OF DNA DAMAGE INDUCED BY IONIZING RADIATION AND BENZO[*a*]-PYRENE IN MAMMALIAN CELLS. **Peter Cerutti, Kunio Shinohara, and Joyce Remsen**

1387 REPAIR REPLICATION AND SISTER CHROMATID EXCHANGES AS INDICATORS OF EXCISABLE AND NONEXCISABLE DAMAGE IN HUMAN (XERODERMA PIGMENTOSUM) CELLS. **James E. Cleaver**

1395 ALKYLATION DAMAGE AND DNA EXCISION REPAIR IN MAMMALIAN CELLS. **Bernard S. Strauss, Peter Karran, and N. Patrick Higgins**

1415 EXTRAPOLATION OF CELLULAR AND MOLECULAR LEVEL STUDIES TO THE HUMAN SITUATION. **P. N. Magee**

1425 EXTRAPOLATION OF ANIMAL STUDIES TO THE HUMAN SITUATION. **John A. Zapp, Jr.**

1435 SCIENTIFIC BASES OF ENVIRONMENTAL CARCINOGENESIS AND CANCER PREVENTION: DEVELOPING AN INTERDISCIPLINARY SCIENCE AND FACING ITS ETHICAL IMPLICATIONS. **Umberto Saffiotti**

1448 ANNOUNCEMENTS

1449 AUTHOR INDEX TO VOLUME 2

1452 SUBJECT INDEX TO VOLUME 2